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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,874	02/08/2001	Mikio Ihama	0042-0437P-SP	6673
2292	7590	05/18/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			WALKE, AMANDA C	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/778,874	IHAMA, MIKIO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Amanda C. Walke	1752	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5,6,9,17,18 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,9,17,18 and 21-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments/ amendments filed 2/24/2006, with respect to newly amended claim 1 have been fully considered and are persuasive. The examiner erred in indicating that claims 19 and 20 contained allowable subject matter in the previous office action, thus the rejection of claims 1-18, 21, and 22 has been withdrawn and a new rejection follows.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 6, 9, 17, 18, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brust et al (6,100,019) in view of Nishikawa et al (6,007,977) and Wen et al (5,536,632).

Brust et al disclose a silver halide photographic material comprising high bromide {111} tabular grains having a high chloride epitaxy. The grains are preferably silver iodochlorobromide and contain silver iodide in an amount of less than 10 mole %, and silver chloride in an amount of less than 10 % as well (column 3, line 53 to column 4, line 35). It would have been obvious to one of ordinary skill in the art to prepare the emulsion using any amount within these ranges. Additionally, the inventive grains comprise either 0.75 mol % or 1.2 mol % iodide. The epitaxial deposits may constitute only 0.1 % of the total silver, thus the chloride may be added in an amount as low as 0.1 mol %. The grains account for at least 90 %, most preferably greater than

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97 % of the total grain projected area, have a thickness of less than 0.2 microns, preferably less than 0.07 microns, an ECD of less than 6 microns, and an aspect ratio of at least 5 (column 5, lines 30-57). The grains may be hexagonal (column 7, lines 34-50). The grains contain high chloride epitaxies in the corners of the grains. The examples prepare grains having 6 epitaxial deposits, one in each corner of the grain, which implies that the grains formed by the examples are hexagonal grains. The pBr during emulsion preparation is preferably adjusted to be between 3.0 and 3.8, after the temperature has been set between 20 and 60 degrees C, and from looking at the inventive examples the temperature is preferably 40 degrees C (column 6, lines 45-67). The exemplified grains also contain one or more dislocation lines at the epitaxial junctions, demonstrating that the grains may have dislocation lines at the apexes of the grains. The material comprising the emulsion is coated on a support (column 10, lines 15-18).

Although the material does not specifically refer to the COV of the ECD of the grains, since the reference teaches that the emulsion should be monodisperse, that the COV would inherently be very low and would be less than less than the 30% and 20 % claimed given that it is most preferable for greater than 97 % of the emulsion to be comprised of the preferred grains which would have an ECD within the claimed range. The reference fails to disclose specific information on the edge lengths of the hexagonal grains.

Nishikawa et al disclose a silver chloriodobromide {111} emulsion comprising hexagonal grains containing dislocation lines in the apexes of the grains (column 4, lines 1-46). The reference teaches that it is preferable for hexagonal grains to have a ratio of the longest side to the shortest side of 2 or less (column 3, lines 11-26), and further teaches that a monodisperse emulsion will have a low COV of the ECD (15 % or less) of the grains.

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It would have been obvious to one of ordinary skill in the art to prepare the monodisperse high bromide {111} hexagonal grain emulsion of Brust et al using hexagonal grains having a ratio of the longest side to the shortest side of 2 or less given that it is taught to be preferable by Maruyama et al with reasonable expectation of achieving an emulsion having high sensitivity and graininess.

Wen et al disclose ultrathin silver iodobromide {111} grains similar to those of the other references, but demonstrates both high silver chloride epitaxies and silver chlorobromide epitaxies, wherein both bromide and chloride are present in the epitaxy, and the chloride content is less than 50 %. These grains exhibit increased contrast and decreased granularity (see table XV in column 41).


It would have been obvious to one of ordinary skill in the art to prepare the monodisperse high bromide {111} hexagonal grain emulsion of Brust et al in view of Nishikawa et al and modifying the epitaxies to be the AgIBrCl epitaxy of Wen et al with reasonable expectation of achieving an emulsion having increased contrast and decreased granularity.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda C. Walke whose telephone number is 571-272-1337. The examiner can normally be reached on M-R 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Amanda C Walke  
Primary Examiner  
Art Unit 1752

ACW  
May 9, 2006